

# **QUICK GUIDE**



# 1. DILUTION

What you will need: measuring cylinder, water, pasteur pipette, a yeast sample from your fermenter or propagator

#### Recommended dilution ratios:

- Day 0: for inoculation (before adding to must) 1 ml yeast sample + 99 ml tap water
- Day 1-4: during the first days the yeast concentration is expected to be low, therefore no dilution is needed
- Day 5: yeast concentration should have grown by now 1 ml yeast sample + 1 ml tap water
- Day 6-10: with the growing concentration more dilution is recommended 0.5 ml yeast sample + 1.5 ml tap water
- Step 1: fill a reaction tube or the measuring cylinder with the exact amount of tap water you need for the dilution
- Step 2: fill your pasteur pipette with the exact amount of yeast sample and add it to the tap water
- Step 3: run the solution in and out of the pipette three times to make sure it is completely empty
- Step 4: when using the measuring cylinder, take the pasteur pipette and stir vigorously now it's diluted!

# 2. STAINING (only required when measuring viability)

What you will need: diluted yeast sample, pasteur pipette, reaction tube, methylene violet

- **Step 1:** fill the pasteur pipette with 0.5ml of your diluted yeast sample
- **Step 2**: take the 0.5ml of the diluted yeast sample and put it into a reaction tube
- Step 3: take 0.5ml of the methylene violet solution and add it to the reaction tube
- **Step 4:** run the mixture through the pipette a few times

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### 3. LOADING THE CHAMBER

What you will need: diluted (and stained) yeast sample, pasteur pipette, sample chamber

- Step 1: fill the pasteur pipette with a small amount of your diluted (and stained) sample
- Step 2: pipette the sample into either one of the chamber openings
- Step 3: let the capillary forces pull the sample through the chamber
- Step 4: leave it for approx. 5 minutes to let the yeast cells settle and the staining react

## 4. MEASURING

What you will need: microscope, mobile device, chamber loaded with diluted (and stained) yeast sample

### Taking the images

- Step 1: connect the microscope via cable to your mobile device or computer and open the Fermentation Wine app
- Step 2: put the chamber into the microscope and slide it up to its first marking
- Step 3: choose in the app whether you want to conduct a measurement with or without viability
- Step 4: now adjust the focus wheel of the microscope until you see a sharp image on your mobile device
- **Step 5:** take the picture to add the image to the analysis
- Step 6: release the focus wheel a bit to move the chamber to the next marking to take the next image
- **Step 7:** repeat the steps above to take 5 images

#### Performing the analysis

- Step 1: after you took 5 images, enter a name for your sample (date & time are filled automatically)
- Step 2: enter the ratio for dilution and staining
- Step 3: (optional) add a comment to keep track of additional information about the sample
- Step 4: click "next" to perform the analysis and review your results

## **5. CLEANING THE CHAMBER** (should be done shortly after the analysis)

What you will need: recently used chamber, distilled water, syringe, bellows, paper tissue

- Step 1: fill the syringe with distilled water and rinse the chamber with it
- Step 2: use the cleaning bellows to gently blow air through the chamber
- Step 3: use the paper tissue to collect the remaining water from the chamber openings
- Step 4: (optional) repeat step 1 to 3 with diluted detergent if water doesn't clean well enough

## **Support:**

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